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AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

1. (Currently Amended) In a multi-hop network including a plurality of nodes that each maintains a table of network topology, a method for disseminating topology and link-state information over the multi-hop network, comprising:

maintaining a path tree for each source node in the network that can produce an update message, each path tree having that source node as a root node, a parent node, and zero or more children nodes;

receiving an update message from the parent node in accordance with the path tree maintained for the source node that originated the received update message, the update message including information related to a link in the network;

updating the table of network topology in response to the information in the received update message; and

forwarding the update message to children nodes, if any, in accordance with the path tree maintained for the source node that originated the update message in response to the information in the received update message, if it is determined that the update message should be forwarded to the zero or more children nodes, such that topology information for the network is globally updated across the plurality of nodes.

- 2. (Original) The method of claim 1 wherein the information related to the link indicates whether the update message is to be forwarded to other nodes.
- 3. (Original) The method of claim 1 wherein the path tree associated with each source node is a minimum-hop-path tree.
- 4. (Original) The method of claim 1 further comprising obtaining link-state